CLAIMS

1. A high-density detergent composition comprising 10 to 60% by weight of a surfactant composition having a weight ratio of an anionic surfactant to a nonionic surfactant of 4:10 or more and 10:0 or less, wherein the high-density detergent composition has a bulk density of from 600 to 1200 g/L, and has a total summation of a product of a mass base frequency Wi and a dissolving rate Vi of each group of classified granules obtained by classifying detergent granules by using a classifier, which satisfies the following formula (A):

$$\Sigma(Wi \bullet Vi) \geq 95(\%) \qquad (A)$$

and wherein a mass base frequency of the classified granules having a size of less than 125 μm is 0.1 or less, wherein the classifier comprises sieves each having a sieve-opening 2000 μm, 1410 μm, 1000 μm, 710 μm, 500 μm, 355 μm, 250 μm, 180 μm, and 125 μm, and a receiver, and the dissolving rate Vi is determined under the following measurement conditions:

supplying 1.000 g ± 0.010 g of a sample to 1.00 L ± 0.03 L of water at 5°C ± 0.5°C having a water hardness of 4°DH, stirring in a 1 L beaker of which inner diameter is 105 mm, with a cylindrical stirring rod of which length is 35 mm and diameter is 8 mm, at a rotational speed of 800 rpm for 120 seconds, and thereafter filtering insoluble remnants by a standard sieve having a sieve-opening of 300 μm as defined according to JIS Z 8801, wherein the dissolving rate Vi of the classified granules is calculated by the following formula (a), i being each group of the classified granules:

$$Vi = (1 - Ti/Si) \times 100(\%) \qquad (a)$$

wherein Si is a weight (g) of each group of the classified granules supplied; and Ti is a dry weight (g) of the insoluble remnants of each group of the classified granules remaining on the sieve after filtration.

2. A high-density detergent composition comprising 10 to 60% by weight of a surfactant composition having a weight ratio of an anionic surfactant to a nonionic surfactant of 0:10 or more and less than 4:10, the detergent composition having a bulk density of from 600 to 1200 g/L, wherein the high-density detergent composition has a total summation of a product of a mass base frequency Wi of each group of classified granules obtained by classifying detergent granules by using the classifier as defined in claim 1 and a dissolving rate Vi of each group of the classified granules determined under the measurement conditions as defined in claim 1, which satisfies the following formula (B):

$$\Sigma(Wi \bullet Vi) \geq 97(\%) \qquad (B)$$

and wherein a mass base frequency of the classified granules having a size of less than 125 μm is 0.08 or less.

3. A process for preparing the high-density detergent composition of claim 1, comprising subjecting unclassified detergent granules comprising 10 to 60% by weight of a surfactant composition to classification operation; and adjusting a particle size of each group of the resulting classified granules, such that the formula (A) as defined in claim 1 is satisfied, and that a mass base frequency of the classified granules having a size of less than 125 μm is 0.1 or less.

4. A process for preparing the high-density detergent composition of claim 2, comprising subjecting unclassified detergent granules comprising 10 to 60% by weight of a surfactant composition to classification operation; and adjusting a particle size of each group of the resulting classified granules, such that the formula (B) as defined in claim 2 is satisfied, and a mass base frequency of the classified granules having a size of less than 125 μm is 0.08 or less.